DOCUMENT RESUME

ED 449 467 CS 014 222

TITLE	Small Schools Yield Big Educational Benefits. Report.
INSTITUTION	School Renaissance Inst., Inc., Madison, WI.
PUB DATE	2000-08-00
NOTE	8p.
AVAILABLE FROM	School Renaissance Institute, P.O. Box 45016, Madison, WI 53744-5016. Tel: 800-200-4848 (Toll Free); Fax: 608-664-3882; Web site: http://www.SchoolRenaissance.com.
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Cost Effectiveness; *Educational Benefits; Elementary Secondary Education; *Public Schools; *School Size; *Small Schools; Student Needs
IDENTIFIERS	Conant Report; Educational Issues; Historical Background

ABSTRACT

For the most part, education in the United States started out small, but the 20th century brought significant changes. The Industrial Revolution and immigration swelled American cities at the beginning of the century, and urban schools grew along with them. In the 1950s and 1960s, many communities, educators, and politicians focused on integration, and found it desirable to move from neighborhood schools to bigger, more diverse institutions which could offer students a more comprehensive curriculum and extra-curricular activities at a lower cost. This report discusses the benefits of small schools (between 350 and 900 students). The report contends that small schools offer a more rewarding experience for students and staff, as well as a degree of community experience that is rarely possible in large schools. It also states that research suggests that students perform better in small schools, and that research has begun to call into question James Conant's assertion that large schools are a better educational bargain. The report discusses how to accomplish a transition to smaller schools and points out that small size does not automatically ensure success or guarantee quality. (Contains 2 tables of data and a 35-item bibliography.) (NKA)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 449 467

Small Schools Yield Big Educational Benefits.

Report

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K. Hintz

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

CS 014 222

REPORT from the School Renaissance Institute

School Renaissance Institute

August 2000

Small Schools Yield Big Educational Benefits

Introduction: From Small to Large and Back Again

For the most part, education in the United States started out small, in one-room schoolhouses containing multi-age classes. The older, more experienced students helped the younger ones. The curriculum stayed basic—reading, writing, arithmetic, English literature, and history—and teachers taught survival skills for everyday life.

The 20th century brought significant changes in those patterns. The Industrial Revolution and immigration swelled American cities at the beginning of the century, and urban schools grew along with them. In the 1950s and 1960s, many communities, educators, and politicians focused on integration, and found it desirable to move from neighborhood schools to bigger, more diverse institutions. In 1967, then Harvard President James Bryant Conant's book, *The Comprehensive High School*, asserted the superiority of large-size, multi-grade schools (over 750 students) because they could offer students a high-quality and more comprehensive curriculum and extra-curricular activities at a lower cost.

Over the remainder of the century, the number of schools in America has decreased, while their student populations have increased. So sincerely did education policy makers believed in the "bigger is better" principle that ". . . since World War II, the number of schools declined 70 percent while the average size grew fivefold . . . ." according to Andrew Rotherham of the 21st Century Schools Project (1999). The following tables from the Department of Education detail school size in the United States for 1993–94 and 1995–96, respectively:

Table 1: Average school size, 1993–1994

Level and Location	Public	Private
Elementary		
Central City	547	210
Urban fringe/large town	524	201
Rural/small town	378	112
Secondary		
Central City	1,083	398
Urban fringe/large town	973	308
Rural/small town	468	183

Source: U.S. Department of Education, National Center for Education Statistics, *Schools and Staffing in the United States: A Statistical Profile, 1993–94*.

Table 2: Percentage distribution of public schools and students by enrollment size, 1995–1996

Number of Students	% of schools (85,102 total)	% of students (44,840,481 total)
1–99	8.9	0.8
100–299	20.8	8.1
300–749	50.8	48.1
750–1,499	16.4	30.8
>1,500	3.2	12.2

Source: U.S. Department of Education, National Center for Education Statistics, *Characteristics of Public Schools and Agencies, 1995–96*.

BEST COPY AVAILABLE

While ideas about how much size matters have changed since the 1970s, large multi-grade schools do offer some benefits:

- Their curriculum is usually broader and can be deeper, offering not only a wider subject matter but also classes geared toward the needs of different student populations.
- Economies of scale can result in a lower cost to educate each student.
- Some studies, such as G. Downey's 1978 research, show that students from larger high schools perform better on standardized tests.

Despite these apparent advantages, other researchers, such as R.G. Barker and P.V. Gump were championing the merits of small schools as early as 1964.

How Small is Small?

Researchers and educators still debate just how many students a school can enroll and still be considered small. These are a few of the positions that have been taken on the question:

- An enrollment of 400 students would ensure adequate curriculum in a high school (Haller et al. 1990).
- The National Association of Secondary School Principals asserted in 1996 that the optimum number of students in a middle/junior high school is 600.
- Researchers Fine and Somerville advocated an upper limit of 350 students in elementary schools and 500 in high schools in 1998.
- Statistical researchers Lee and Smith concluded in 1997 that a population of 600–900 students per school works best from an academic achievement standpoint.

Despite the lack of consensus on the precise meaning of "small," it is reasonable to conclude that a high percentage of U.S. high schools are larger than is desirable from an educational standpoint. Rotherham points out that schools with student populations of 2,000–3,000 are not uncommon. Inner city schools are the biggest, with nine New York City schools topping the 4,000 mark and one over 5,000.

Small Schools Offer Community

Although for years the educational community sought larger schools, today the vast preponderance of research evidence favors small schools. In large part, it is because small schools offer a degree of community experience that is rarely possible in large schools. The Carnegie Corporation's *Turning Points: Preparing American Youth for the 21st Century* concluded that small learning communities are of great benefit to students compared with large institutions, particularly those with rigid bureaucratic structures. Research by J. Garbarino (1995), V.E. Lee and J.B. Smith (1995), B. Rogers (1992), and many others concurred.

Community implies relationships and strong personal commitment, and that is borne out by educators' experience. Staff members in smaller schools tend to report a higher degree of job satisfaction. They often garner more autonomy and flexibility within the school system. They commonly function as part of a small team, and thus have support and input from peers. Teachers are also more likely to know most of the students within the school, and can therefore have more direct input into and impact on their students' lives (Cotton 1996a, Stockard and Mayberry 1992).

Small schools may provide a more rewarding experience for students as well. Although small schools do not normally offer the range of classes or extracurricular activities available at large schools, students in a small-school setting are much more likely to participate in those that are available. According to a May 31, 1999 *Time* magazine special report on troubled kids, this occurs because students experience less competition for roles in band, student government, and sports activities (Christian 1999). A study published in 1996 by Kathleen Cotton of the Northwest Regional Educational Laboratory found that small-school students are not only more likely to be involved in extracurricular activities, but they are also more likely to take on leadership roles and responsibility (Cotton 1996a). Early research by Barker and Gump found similar results (1964).

Karen Irmsher reports in her article, "School Size," that only a small tier of "star" students in large high schools actually benefit from increased offerings and the attendant adult attention. The other 70 to 80 percent of students often feel alienated from school culture, and belong to social groups that have little or no adult input (1997). In contrast, R.A. Rutter's 1988 research provides evidence that small schools facilitate the bonds students establish, both with teachers and other students.

In addition, parents are more likely to get involved in small schools than in large ones. They may feel that their individual contribution is important to the success of the school and the community, which can have the effect of strengthening the links between school, community, and home.

Student Behavior in Small Multi-Grade Schools

On average, attendance is higher and dropout rates

lower in small schools. Several studies in the 1980s associate lower dropout rates with small schools (Howley 1994). Studies since 1988 have fostered a consensus that small schools do a better job of ensuring that students actually attend classes (Tompkins 1988, Aschbacher 1991, Gordon 1992). In fact, according to Susan Galletti of the National Association of Secondary School Principals, students with histories of truancy often exhibit improved attendance when switched from a large to a small school (1999).

Cotton's 1996 synthesis of 103 studies illuminates some of the reasons attendance is better at smaller schools. Cotton suggests that because the sense of community and belonging is greater in small schools, students are more likely to feel that they matter to teachers and other students, creating a greater sense of personal responsibility for their own learning experience (Cotton 1996b). "Things are better in smaller environments," Cotton told *Time* (Christian 1999). "Shy kids, poor kids, the average athletes—they are all made to feel like they fit in." By contrast, large-school students often feel isolated and categorized. Research psychologist Gerald Bracey points out, " . . . the number-one complaint they reported about their high school experience was that they hated the anonymity of the large schools. Some said they felt 'dehumanized' . . ." (1998). Bracey goes on to argue that one of the ostensible strengths of larger high schools, specialization, can also lead to social stratification, which can further alienate vulnerable adolescent students.

Discipline problems appear to be more abundant in large schools. Sally Kilgore, director of the Modern Red Schoolhouse Institute in Nashville, Tennessee, asserts, "Big schools have precipitated all sorts of discipline problems. Too many kids fall through the cracks. They don't have a feeling of attachment, either to the school or the adults they find there . . ." (Coeyman 1998). Researchers Jean Stockard and Maralee Mayberry concluded that " . . . behavior problems are so much greater in larger schools that any possible virtue of larger size is canceled out by the difficulties of maintaining an orderly learning environment . . ." (1992).

Cotton's 1996 research pointed out lower incidences in small schools of a range of antisocial behaviors, including truancy, vandalism, smoking, substance abuse, gang participation, and even classroom disruption. The experience of Clymer Elementary School in Philadelphia illustrates this relationship. Principal Naomi Booker started out with 900 students, most of whom were failing basic skills. She saw 400 of those children each school year for behavior problems. The school was then divided into three smaller "learning communities." The number of students Booker sees for behavior problems has since shrunk to 40 per year (Cushman 2000).

Student Performance in Small Schools

Research suggests that students who perform best in large-school settings are those from upper-middle class families (Howley 1994), while students from low-income families are the most hurt by attending large schools (Bracey 1998). Unfortunately, most of the largest schools and school districts are in urban areas and contain large proportions of economically disadvantaged and minority students. This means that the students who would benefit most from a small-school education are among the least likely to get one (Cotton 1996b).

Irmsher expands the argument to cover a broader population. "A higher percentage of students, across all socio-economic levels, are successful when they are part of smaller, more intimate learning communities. Females, nonwhites, and special-needs students, whether at risk, gifted, exceptional, or disadvantaged, are all better served by small schools . . ." (1997).

Professor Mary Anne Raywid concurs, characterizing small schools as something of a class equalizer. "Whereas in large high schools success tends to be stratified along socio-economic lines, this does not hold for small schools" (1997–98).

Studies in Pennsylvania, Alaska, New Jersey, and an unidentified western state all conclude that students, especially disadvantaged students, learn more science, reading, math, and history in small schools than in large ones. In addition, the school size impact remains constant throughout grade levels and even increases in importance as a success factor as students get older (Lee and Smith 1994, 1995, and Howley 1989).

The positive effect of small schools may last beyond graduation. In East Harlem's small Central Park East Secondary School, 80 percent of students finish high school, and 90 percent of those go on to college (Raywid 1996).

Small Schools are Cost Effective

Research has begun to call into question Conant's assertion that large schools are a better educational bargain. A 1998 cost-benefit analysis of New York City's small schools found them to be an excellent value. Researchers found evidence that small additional expenditures provided large improvements in outcomes (Stiefel et al. 1998). While per-student costs may be higher, analysis indicated that smaller schools were less expensive on a per-graduate basis. In their 1997 report, Lee and Smith examined the cost savings generally associated with consolidated schools. They found that

the cost advantages of size were mitigated by the need for additional layers of administrative and support staff.

Technology in Small Schools

Conant asserted that large schools offer a wider spectrum of learning opportunities than small schools. This may have been true in the past, but the advent of computers in the classroom is rapidly shrinking that advantage. "E-learning" and the proliferation of classroom software have altered the landscape considerably. Classes can now partner with other classes across the globe, and students have ready access via the Internet to world-class libraries, databases, and other research materials.

"This significantly closes the gap between big and small," asserts Terry Paul, chairman of School Renaissance Institute. "There are even science classes with computer simulations that can go a long way to make up for primitive lab conditions in small schools . . ." (Paul 2000).

Is There Hope for Large Schools?

Even if policy makers, educators, and parents were to achieve consensus on the desirability of small schools, the wholesale razing of the nation's larger institutions is hardly a viable option. Instead, alternative solutions must be found that capture the benefits of small schools and adapt them for larger schools and the educational communities of which they are a part.

Some schools, such as Clymer Elementary, have succeeded in improving the quality of the education they provide by dividing creatively within their own existing walls. In this case, Principal Naomi Booker formed three teams of 12 to 17 teachers into separate learning communities, each engaging about 225 children. Other systems have grouped several small schools together in a single shared building, in which administration and support services are sometimes shared as well. Some large schools have applied a "school-within-a-school" model, with varying degrees of success.

According to Cotton, the federal government has plans to assist schools of over 1,000 students in downsizing. The Smaller Learning Communities Act in 1999, sponsored by Wisconsin Congressman David Obey, set aside $45 million to be used for this purpose. "This [money] is not for new construction," Cotton warns. "Interested schools will have to use the school-within-a-school model" (1996b).

She explains that the U.S. Department of Education has recently been holding outreach sessions around the country for interested educators. Cotton's own organization, the Northwest Regional Educational Laboratory, hosted one such session in Portland, Ore., during April of 2000. Seventy-five people from 36 area schools attended.

Cotton herself advocates the transition to smaller schools, and favors the school-within-a-school model. She is encouraged by government actions to shrink school size. Not only has Vice President Al Gore publicly urged districts to cease "herding all students . . . into overcrowded, factory-style high schools . . ." (Christian 1999), but President Clinton has asked Congress for an additional $120 million to expand the scope of the Smaller Learning Communities Act. Congress will take up the proposal in 2001.

Small Size Does Not Automatically Ensure Success

While size does have a demonstrable impact on school experience and the quality of education, smallness alone is not a panacea for educational woes. Researchers have identified several failed attempts at solving education problems by adjusting learning community size:

- Raywid outlines an example of a district undermining the autonomous structure of a school-within-a-school, ensuring its failure. Another school she cites struggled, and ultimately failed, in its attempts to become three separate schools or three programs within a parent school (1996).
- The Annie E. Casey Foundation's *New Futures* project tried to improve educational opportunities for disadvantaged youth in four cities by restructuring schools. Researchers found that staff approached the restructuring moves as mere add-ons to existing programs. Without their full buy-in, the project failed (Annie E. Casey Foundation 1995).

Conclusion

Smallness does not guarantee quality, but successful small schools do seem to have distinct characteristics that foster their success. Small schools facilitate a sense of community that leads to a connectedness between and among students and teachers. The educational experience for students is more personalized, leading to fewer discipline problems, increased motivation to learn, and improved academic achievement.

While existing research supports a range of opinions about the impact of school size on educational quality, it seems clear that small, multi-age schools offer a number of advantages that are, taken together, capable of contributing to a superior learning experience.

Bibliography

Annie E. Casey Foundation. *The Path of Most Resistance: Reflections on Lessons Learned From* New Futures. Baltimore, Md.: Annie E. Casey Foundation, 1995.

Aschbacher, Pamela R. Humanitas: A Thematic Approach. *Educational Leadership* 49, no. 2 (1991): 16–19.

Barker, R.G. and P.V. Gump. *Big School, Small School: High School Size and Student Behavior.* Palo Alto, CA: Stanford University Press, 1964.

Bracey, Gerald. An Optimal Size for High Schools? *Phi Delta Kappan* 79, no. 5 (1998): 409.

The Carnegie Corporation of New York, Task Force on the Education of Young Adolescents. *Turning Points: Preparing American Youth for the 21st Century.* New York, 1989.

Christian, Nichole. Is Smaller Perhaps Better? *Time* (31 May 1999).

Coeyman, Marjorie. In '90s Schools, a Return to "Small is Beautiful." *Christian Science Monitor,* 25 August 1998, no. 190, sec. B4.

Conant, J.B. *The Comprehensive High School.* New York: McGraw-Hill, 1967.

Cotton, Kathleen. Affective and Social Benefits of Small-Scale Schooling. In ERIC Digest [on-line database]. Charleston, W.Va., 1996a. Available from ERIC Digest, ED 401088.

———. *School Size, School Climate, and Student Performance.* Close-up no. 20. Portland, Ore.: The Northwest Regional Educational Laboratory, 1996b.

Cushman, Kathleen. Shrinking Big Schools for Better Learning. *The Education Digest* (February 2000).

Downey, G. Difference Between Entering Freshmen From Different Size High Schools. *Journal of College Student Personnel* 19, no. 4 (1978): 353–58.

Fine, M. and J.I. Somerville, eds. *Small Schools, Big Imaginations: A Creative Look at Urban Public Schools.* Chicago: Cross City Campaign for Urban School Reform, 1998.

Galletti, Susan. School Size Counts. *The Education Digest* 64, no. 9 (1999): 15–17.

Garbarino, J. *Raising Children in a Socially Toxic Environment.* San Francisco: Jossey-Bass, 1995.

Gardner, Pamela; Shulamit Ritblatt; and James Beatty. Academic Achievement and Parental School Involvement as a Function of High School Size. *High School Journal* 83, no. 2 (1999–2000): 21–27.

Gordon, Randy. Schools Within a School, Grades 7, 8, 9, 10: Focus on Program Evaluation. In ERIC Digest [on-line database]. Des Moines, Iowa, 1992. Available from ERIC Digest, ED 371045.

Haller, Emil; D. Monk; A. Spotted Bear; J. Griffith; and P. Moss. School Size and Program Comprehensiveness: Evidence From High School and Beyond. *Educational Evaluation and Policy Analysis* 12, no. 2 (1990): 109–20.

Howley, C. Synthesis of the Effects of School and District Size: What Research Says About Achievement in Small Schools and School Districts. *Journal of Rural and Small Schools* 4, no. 1 (1989): 2–12.

———. The Academic Effectiveness of Small-Scale Schooling (an update). In ERIC Digest [on-line database]. Charleston, W.Va., 1994. Available from ERIC Digest, ED 372897.

Irmsher, Karen. School Size. In ERIC Digest, no. 113 [on-line database]. Eugene, Ore., 1997. Available from ERIC Digest, ED 414615.

Lee, Valerie E. and Julia B. Smith. High School Restructuring and Student Achievement: A New Study Finds Strong Links. Issues in Restructuring Schools, no. 7 (1994).

——— Effects of High School Restructuring and Size on Early Gains in Achievement and Engagement. *Sociology of Education* 68, no. 4 (1995): 241–70.

——— High School Size: Which Works Best and For Whom? *Educational Evaluation and Policy Analysis* 19, no. 3 (1997): 205–27.

Marshak, David. *Why Every Child in America Deserves a School Where She/He is Known and Valued.* Seattle, Wash.: New Horizons for Learning, 2000.

Maurer, Matthew and George Davidson. Technology, Children, and the Power of the Heart. *Phi Delta Kappan* 80, no. 6 (1999): 458–60.

Raywid, Mary Anne. *Taking Stock: The Movement to Create Mini-Schools, Schools-Within-Schools, and Separate Small Schools.* Urban and Diversity Series, no. 108. New York, 1996.

———. Small Schools: A Reform That Works. *Educational Leadership* 55, no. 4 (1997–1998): 34–39.

———. Current Literature on Small Schools. In ERIC Digest [on-line database]. Charleston, W.Va., 1999. Available from ERIC Digest, ED 425049.

Rogers, B. *Small is Beautiful.* Providence, R.I.: Coalition of Essential Schools, 1992.

Rotherham, Andrew. When it Comes to School Size, Smaller is Better. *Education Week* 18, no. 24 (24 February 1999): 76.

Rutter, R.A. *Effects of School as a Community.* Madison, Wis.: National Center on Effective Secondary Schools, 1988.

Stiefel, L.; P. Latarola; N. Fruchter; and R. Berne. *The Effects of Size of Student Body on School Costs and Performance in New York City High Schools.* New York: Institute for Education and Social Policy, New York University, 1998.

Stockard, Jean and Maralee Mayberry. *Effective Educational Environments.* Newbury Park, CA: Corwin, 1992.

Tompkins, John. Dropout Prevention Programs, 1987–88: Report of Evaluation. In ERIC Digest [on-line database]. Des Moines, Iowa, 1988. Available from ERIC Digest, ED 304480.

Reading Renaissance and Math Renaissance are registered trademarks of the Institute for Academic Excellence, Inc. Renaissance and School Renaissance are trademarks of Advantage Learning Systems, Inc.

For more information, or for additional copies of this report, contact:

School Renaissance™ Institute

School Renaissance Institute • Educational Research Department
P.O. Box 45016 • Madison, WI 53744-5016
(800) 200-4848 • www.SchoolRenaissance.com

Developer of the School Renaissance™ Model: The Nation's Leading Comprehensive School-Improvement Process

Renaissance™ Professional Development, Reading Renaissance®, and Math Renaissance® • School Renaissance™ Institute, formerly the Institute for Academic Excellence™

Copyright © 2000 School Renaissance Institute, Inc. All rights reserved.

L0377.800.RN.20M